Amendments to the Specification:

Please replace paragraph [019] with the following amended paragraph:

[019] United States Patent No. 6,376,117 [[Pending application U.S. Serial No. 09/618,525, filed July 18, 2000, and]] entitled "Internal Fuel Staging For Improved Fuel Cell Performance," contemplates the inclusion of staging plates within the fuel cell stack to enhance reactant gas distribution along the tri-layer. However, the staging plates of this pending application must be provided separately from the interconnect itself, and the application fails to consider any sort of integrated structure. Notably, at present, this application is assigned to the same inventive entity as the present invention, and its entire disclosure is incorporated by reference herein.

Please replace paragraph [025] with the following amended paragraph:

[025] The third embodiment is directed to a method of making an interconnect apparatus. This method for constructing an interconnect apparatus for use in a fuel cell stack includes: providing a plurality of flat members capable of forming a separate reactant gas flow field; providing an impermeable separator plate; forming a pattern of apertures on each flat member; providing a material capable of conducting an electrical current to the separator plate and to at least a portion of the flat members; stacking the flat members on both sides of the separator plate so as to surround the separator plate; aligning the flat members on each side of the separator plate so as to insure a viable electrical connection exists throughout the flat members and the separator plate and so as to insure the pattern of apertures in the stacked members forms a tortuous flow field for reactant gases on each side of the separator plate; and sealing the stacked and aligned flat members and separator plate to insure that reactant gases are contained within the tortuous flow field on each side of the separator plate. Similar to the first tow embodiments (and as will be described in detail below), further modifications can be made with respect to the materials selected (for the flat members, the separator plate and the conductive materials used in each), the methods for aligning the flat members and the options for sealing the final stack.

Please replace paragraph [044] with the following amended paragraph:

[044] The vias 160b, 160c can be distributed uniformly through the ceramic layers 124-127 to provide for optimal current flow throughout the cell stack 100 (Fig. 2). The perforations 130 are preferentially arranged in an approximately hexagonal array within each ceramic layer in a manner such that they overlap to create continuous passageways through the two layers. Fig. 3c shows one possible arrangement contemplated by the present invention.

Please replace paragraph [050] with the following amended paragraph:

[050] The number of ceramic layers used for the fuel gas and air flow structures and the thickness of each layer can be altered according to the relative electrical and physical properties of the desired interconnect/fuel cell stack. Specifically, use of three or more layers on each side of the gas separator plate may allow for the provision of discrete passageways to enhance the distribution of the reactant gases. In this arrangement, a portion of the reactant gas(es) would flow through the interconnect flow field (i.e., the perforated ceramic layers) without coming into contact with the tri-layer until the gas was at a downstream point relative to the location of where the remaining portion of the gas first came into contact with the tri-layer. In essence, the perforations and/or number of ceramic sheets would be utilized to create bypass channels to ensure even reactant distribution along the face of the tri-layer. Insofar as these bypass channels would be integrated into the interconnect itself in order to simplify construction and enhance performance (in comparison to the additional staging plates as contemplated in U.S. Patent No. 6,376,117 [[Serial No. 09/618,525]]), the present invention represents a marked improvement over that patent [[pending application]]. Notably, even with this alternate arrangement, it is important to provide conductive vias for current flow in a uniform, regular manner in order to avoid degradation of stack performance.

Please replace paragraph [060] with the following amended paragraph:

[060] An air-side bonding layer or contact pad may be formed on the outer surface of the air flow structure and in contact with the air-side vias. Such layers ensure good electrical connection between the cathode (or cathode bond layer, if present) and the interconnect. If used, the air-side [[the]]

bonding layer material must be compatible with the materials in which it comes into contact, either during interconnect manufacture or during stack operation. Specifically, these materials include those materials used for air-side vias and the cathode material.

Please replace paragraph [069] with the following amended paragraph:

[069] Application of sealants, and the optional use of sustained compressive force, appear to be another viable option for sealing the interconnect to the remaining stack elements. Notably, to the extent the interconnect used herein may be implemented in combination with elements that are not conducive to co-firing, use of sealant/compressive force may be necessary for efficient operation of the stack. In any event, the selected sealant should be non-conducting and relatively dense, possess a fine porosity (in order to minimize leakage), match the CTE of the constituent elements of the stack, and adhere to the surfaces to which it is applied.